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## Teaching/Learning Strategies through Art: Painting and Basic Design Education

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### Abstract

The art and architecture relationship is discussed within the context of historical process since the first mankind product. Moreover, the art and architecture are mentioned as the most important components through the history of civilisation. Art is a diverse range of human activities and the products of those activities; which depend on the creation of images or objects in fields including painting, sculpture, photography, and other visual media and also architecture. Each artwork is the product of its artist's creativity. The artist forms his artwork through his lifetime experiences in a subjective way by the help of artistic expression, which is as same as for an architect and his architectural work. The art of painting as an art form is the specific shape, or quality an artistic expression takes, which is as same as for an architectural form, and the methods used through for a painting is nearly as same as the methods that an architect uses for his architecture. In the view of this phenomenon, the paper focuses on the relationship between painting and architecture through basic design education. The common elements and principles in painting and architecture will be held in details with examples, to put forward the importance of relationship between two fields, in the aim of proposing a new teaching/learning strategy for basic design education. In the light of this aim, mainly the "space" concept, which is the most common element for an artistic and architectural work will be exemplified with the course practices produced at Karadeniz Technical University, Department of Architecture, Trabzon, Turkey.

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## 1. Introduction: The Relationship of Painting and Architecture

It is known that architecture and painting belonged together. Indeed, they were admirably intertwined at various points in history in the ancient cultures of East and West, and in the European Gothic, Renaissance, and Baroque periods. We see the architecture in paintings and the paintings in architecture, see Fig. 1.



Fig. 1. (a) the architecture in painting; (b) the painting in architecture, Baroc Period (<http://bettybaroque.wordpress.com/2011/03/24/guercino-1591-1666> & <http://www.sacred-destinations.com/italy/rome-san-luigi-dei-francesi>).

In the beginning of the 20<sup>th</sup> Century, we find examples of paintings having a direct influence on architectural design, in the ways it never did before, see Fig. 2.

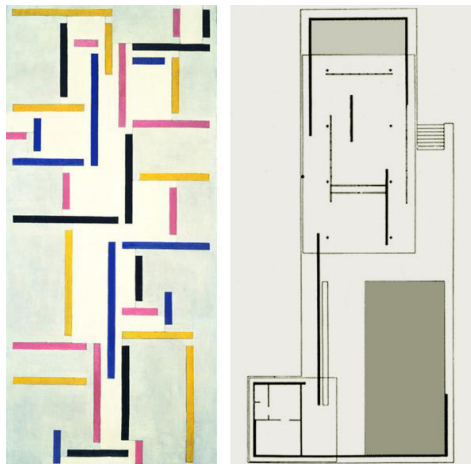


Fig. 2. (a) painting by Theo van Doesburg, 1918; (b) plan for the Barcelona Pavilion by Mies van der Rohe, 1927 (Woods, 2009).

It is though that their independence from each other gave them an intellectual and artistic parity, and allowed architects and painters to learn from each other's works, see Fig. 3.

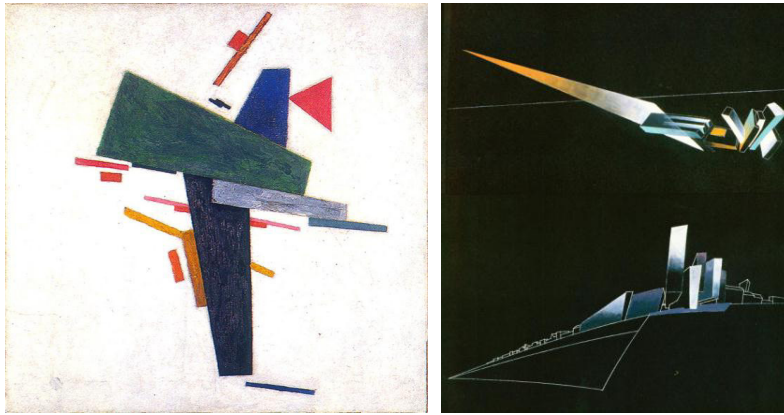


Fig. 3. (a) painting by Kasimir Malevich, 1915; (b) designs by Zaha Hadid for the Media Park, Dusseldorf, 1990 (Woods, 2009).

Before 20<sup>th</sup> Century, it is impossible to think of an architect who adopted in his work, methods or forms from a painter. After the separation of the arts, by the way of modernism, this influence began to appear, and is sure to increase in the future.

### 1.1. The Relationship of Painting and Architecture: Space

As we look at the artworks from past to present, we see that the elements constituting the artwork are created on certain basis. The organization of various elements comes together in a harmonious and/or contrast way to form a whole and are observed to be the inevitable requirements for a piece of work to be qualified as an artwork.

In the light of this truth, it can be said that there are many similarities between painting and architecture through their essence, purpose, methods and techniques. While creating the two basis' products, the artist and the architect use the basic design elements which can be titled as; dot, line, directions, size, shape, texture, value, colour, and the basic design principles such as; repetition, hierarchy, domination, balance, unity, see Fig. 4.



Fig. 4. (a) painting by Pablo Picasso, 1909; (b) design by OMA (Rem Koolhaas) for Seattle Library, 2004  
(<http://lucianwilsonhonorsyear.blogspot.com.tr/2014/01/cubism-and-pablo-picasso.html> &  
<http://610f13.wordpress.com/lectures/lecture-02-differentiation> ).

However, this article aims at pointing out to another significant concept, which is beyond the basic design elements and principles as common aspects of painting and architecture, in addition, lies within the intersection set

of these two. The concept is; “space”, where all basic design elements and principles become auxiliary in creating itself and where the artwork is intuitively, rationally and conceptually formed with a certain setup.

Architecture is the art of creating space. History of painting is in a sense the history of representation of spaces, and these two essences have the nature of emphasizing the necessity and significance of space, both for architecture and painting.

Space, that immaterial essence that the painter suggests and the architect envelops, creates a wholly human and finite environment within the infinite environment of nature (Scruton, 2014). Thus, the space becomes limited by touching the objects or concrete shapes. Painters create the meaning they intend not only with shapes but also by designing the space. The space of painting is a structure which can be limited and has the rules of which is completely determined by its artist.

Space in architecture is simply defined as a volume, which is surrounded and/or surrounds us.

Then, it has its physical form that can be decoded and described by its concrete characteristics, but space is more a social phenomenon than physical one, it is a social product (Proshansky, 1970; Lefebvre, 1998). Therefore, space in architecture is a specific void determined by its architect with its objective(s).

Space in painting and architecture is an abstract concept created in mind based on the interrelations of objects. Thus the concept of space completes its abstract journey initiated within the mind by turning into a concrete product: The surface in painting, the built environment in architecture.

In both areas, the space creates itself and exists with various elements. In painting, the space is created through design elements such as points, lines, forms, dimensions, proportions, textures, colours and with design principles such as repetition, hierarchy, dominance, balance, unity, according to the composition it has. In architecture, the space reaches to a third dimension by raising all these elements and principles which are in two dimensions in painting, and re-exist with planes, surfaces and forms.

### *1.2. The Relationship of Painting and Architecture: Education*

Education in its general sense is a form of learning in which the knowledge, skills, and habits of a group of people are transferred from one generation to the next through teaching, training, or research. Education frequently takes place under the guidance of others, but may also be autodidactic (Dewey 1916, 1944).

Architectural education is a professional discipline, which the architecture spans both the arts and the sciences. Students need to have an understanding of the arts and humanities, as well as a basic technical understanding of structures and construction. Skills in communication, both visual and verbal, are essential. While knowledge and skills must be developed, design is ultimately a process of critical thinking, analysis, and creative activity (ASCA's The Goals of Architectural Education, 2014).

The article intends to exemplify the “Basis Design Course”, which is one of the fundamentals in architectural education, under the title “Teaching/Learning Strategies through Art”.

## **2. Improvement: Painting and Basic Design Education**

“Basic Design” courses in architecture aim at dealing with various concrete-abstract problems as a design problem and to support the designers to produce unique solutions to these problems during the course flow.

Within this scope, one part of the works conducted during the freshman year in “Basic Design” course at Karadeniz Technical University (Trabzon, Turkey), Department of Architecture will be discussed with exercises/examples in terms of perception, interpretation and design by painting-architecture-space relation.

Now, there comes one of the examples, with the theme, purpose(s), problem of the example:

“Theme: The Space of a Painting

Purpose(s): To Acknowledge an Artist and a Painting, To Interpret a Painting, To Identify a Painting within the Basic Design Elements and Principles, To Comprehend Painting-Space-Design Relationship, To Design an Abstract Space.

Problem: Please analyse the artists and their works such as; Piet Mondrian, Theo Van Doesburg, Cesar Domela, Friedrich Vordemberge-Gildewart, Vilmos Huszar, Lajos von Ebneth, Sophie Taeuber, Jean Arp, whose works are

from De Stijl; El Lissitzky, Kasimir Malevich, Henryk Stazewski, Nikolai Suetin, Ilya Chashnik whose works are from Constructivism and Suprematism.

At the end of this research, select minimum 3 compositions from the artist(s) whose works you have admired. Create a three dimensional volumetric composition by transforming the elements you prefer on the base area of your selected works into place/surface elements. Use those elements you do not consider to be in three dimensional as two dimensional base expressions.”

The alternative solutions to the problem can be seen in Figure 5 and figure 6, by the help of the photographs which the left column shows the original paintings and the other two mentions the designers’ approaches within the spatial design organizations based on paintings.

### 3. Conclusion: Teaching/Learning Strategies through Art

The results of the essay can be summaries under two items, parallel to the aim of the study. These are; “teaching/learning strategies in basic design education”; “painting and basic design education as a case in “teaching/learning strategies through art”.

Architectural design is not merely teaching of skills and techniques. It also deals with how one should work on an issue or problem, what the one thinks about how s/he approaches these. Design education is required to enable individuals to think, define, relate, apply their knowledge and work in a changing environment. One should learn to wonder, imagine, observe, search and evaluate available hints to be able to find alternative solutions and approach problems with a criticizing and creative manner.

Designing and the design process involve the concept of “creativity”. Creativity requires, in a sense, to be able to think, produce new things, see objects or situations from different perspectives and this skill can be gained through education.

Creativity lies at the basis of intuition, which includes individualistic freedom. Creativity is the ability to perceive and transfer life; to re-synthesize the existing knowledge and know-how; to reproduce the knowledge and to come up with new products and new ideas. In art, it is of gaining of a new and unique entirety. It contains the items of curiosity, imagination, invention and authenticity.

It suggests analysis, synthesis and original novelty of an issue. In creativity where invention and innovation is the core, all capabilities, thoughts, thinking processes and imagination of the mind interact with each other. The creative action towards invention combines and integrates all pieces of this structure.

Creation begins with selection. The essence of creativity lies in the ability to reach the target through different paths. The creative person freely produces creative works and makes different suggestions during the creative process, by making use of his past, intellectual knowledge and experiences, perceptions and imagination and through evaluation of their environment on this basis and by using his intuition and search results. Therefore, existing events and theories are re-discussed, however, with a different perspective.

Within this scope, when designers encounter with a design problem, they can ask themselves questions such as “what kind of an experience did I have?”, “how do I feel about this experience?”, “what did I think about this experience?”, “why did I think about this experience?”, “what measures, values did I consider basically when I was making my judgment?”, “why do I like some things while I don’t like others?”, “what can I do to improve this situation?” and many more.

Exercises made in light of the given examples have the nature of introducing design and design action, developing different perspectives, bringing in the skills of making different interpretations on events, objects and situations, enabling each single designer to develop their own unique ways of perception, thinking and acting in the face of concrete or abstract problems, enabling them to understand that being unique and creative is about the one’s way of thinking and expressing themselves, in parallel to the main purpose of the Basic Design course.

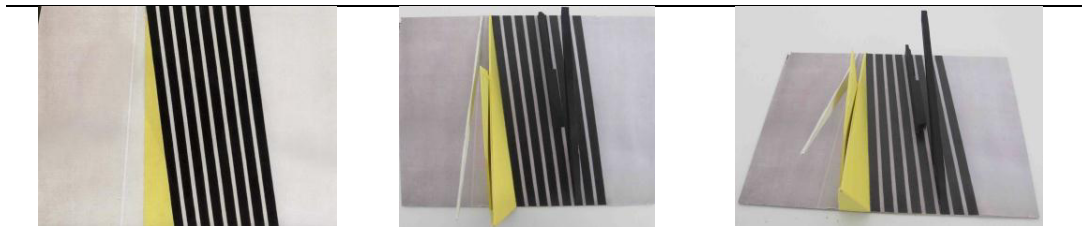
As a result of the implementations, designers first learn basic information about the determined movement, artwork and artist. Through the determined art movements and paintings, they see that the artworks are based on certain rules, which, sometimes intuitively, sometimes rationally and sometimes conceptually exist within a certain space setup and suggestion. They analyse the state of basic design elements available in these artworks, such as points, lines, direction, shape, texture, colour, at the time of combination and in line with the relevant rules. They



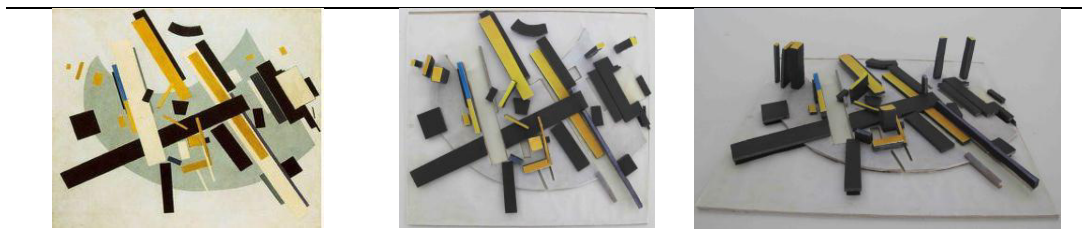
perceive the way of using design principles, such as repetition, hierarchy, dominance, balance, unity, in these artworks. They determine the two dimensional organization of these elements and principles. They upgrade their interpretations to three dimensional structures to form space/spaces through use of planes and surfaces.

As quoted from Wernher Von Braun, they use the essence of creativity, “the known” in new ways and combine them in forms “not seen before”. They gain a new perspective and a new way of expression through the space perception and space design.

Figure5. The Space(s) of a Painting-1.



Friedrich Vordemberge-Gildewart, Composition No: 56, 1930



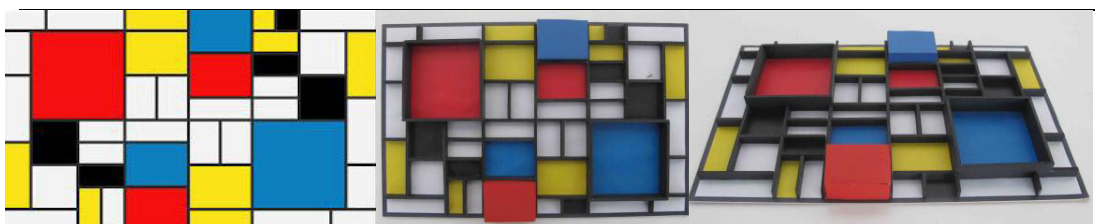
Kasimir Malevich, Supremus No. 58, 1916



Lajos von Ebner, Composition, 1926



Kasimir Malevich, Suprematist Painting, 1916



Piet Mondrian, No. VI / Composition No. II, 1920

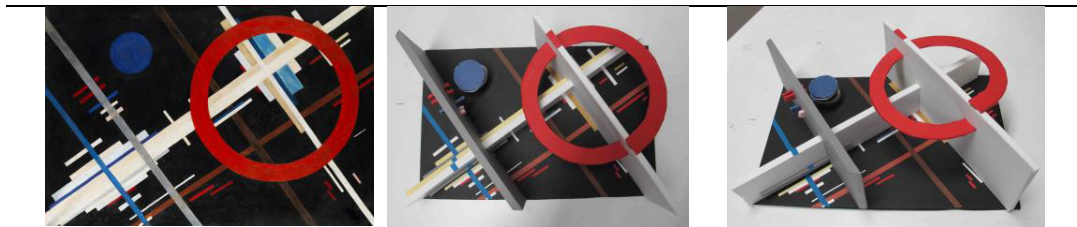
Figure 6. The Space(s) of a Painting-2.



Cesar Domela, Relief, 1930s



Nikolai Suetin, Composition, 1930s



Ilya Chahsnik, Suprematist Composition, 1920s



Kasimir Malevich, Suprematism, 1920s



Friedrich Vordemberge-Gildewart, Composition, 1930s

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